The session will begin promptly at 6:30pm. Please look at the maps & materials before the session begins. Thank you!

Updates for the Portland Harbor Superfund Site

EPA Community Information Session

Facilitated by Kay Morrison, EPA R10

St. Johns Community Center in Portland, OR

January 10, 2018

Karl Gustavson, EPA HQ Contaminated Sediments Expert
Sean Sheldrake, EPA R10 Remedial Project Manager
Laura Knudsen, EPA R10 Community Involvement Coordinator

Acknowledgements

Technical Coordinating Team (TCT)

- **Formed in 2001 per a Memorandum of Understanding (MOU) with EPA**
- **Consists of EPA and the Following Members:**
  - Oregon Department of Environmental Quality (ODEQ)
  - Confederated Tribes and Bands of the Yakama Nation
  - Confederated Tribes of the Grand Ronde Community of Oregon
  - Confederated Tribes of the Siletz Indians
  - Confederated Tribes of the Umatilla Indian Reservation
  - Confederated Tribes of the Warm Springs Reservation of Oregon
  - the Nez Perce Tribe
  - National Oceanic and Atmospheric Administration
  - Oregon Department of Fish and Wildlife
  - U.S. Department of Interior

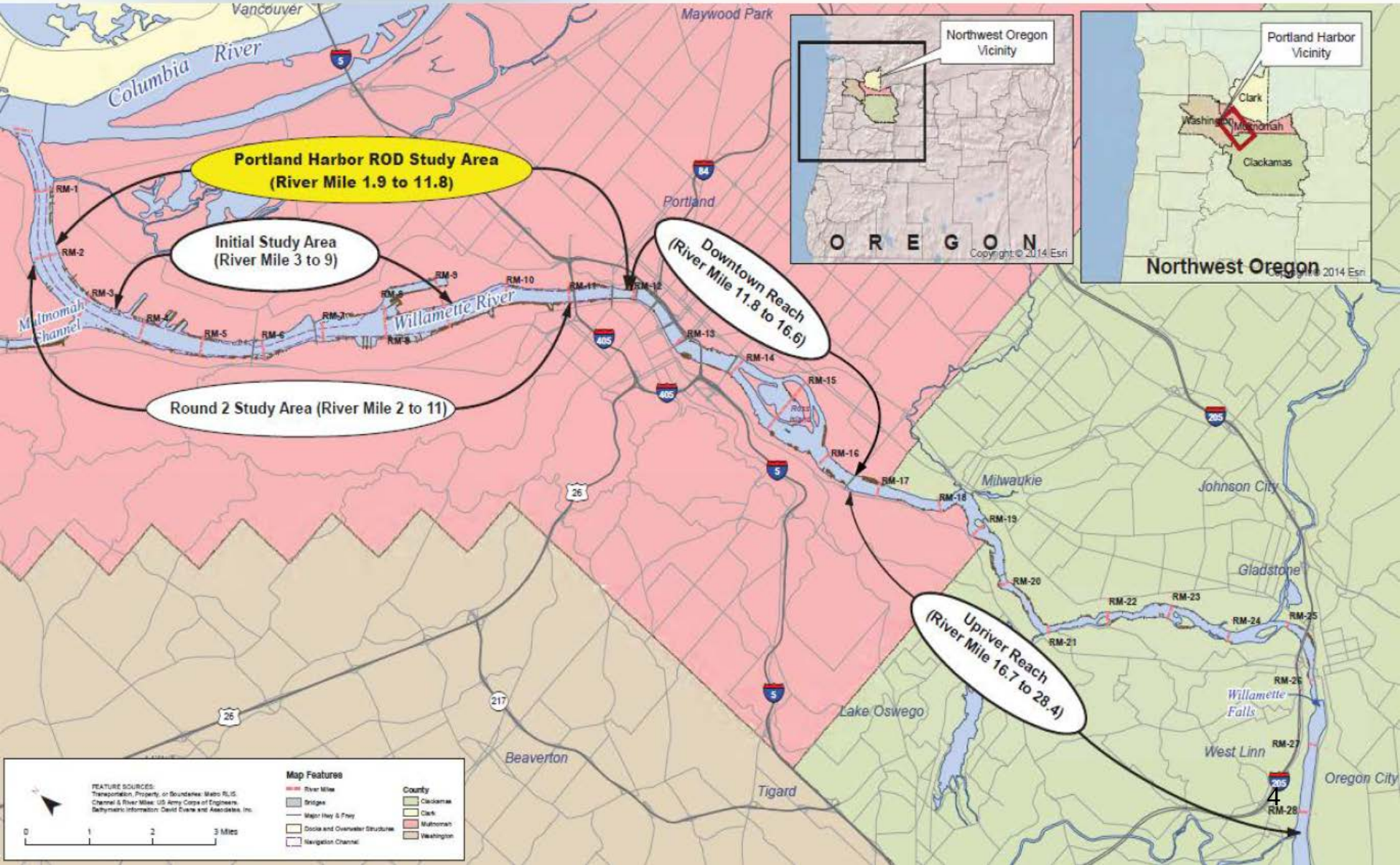
Photo Credit: http://www.lumaxart.com/

Session Agenda

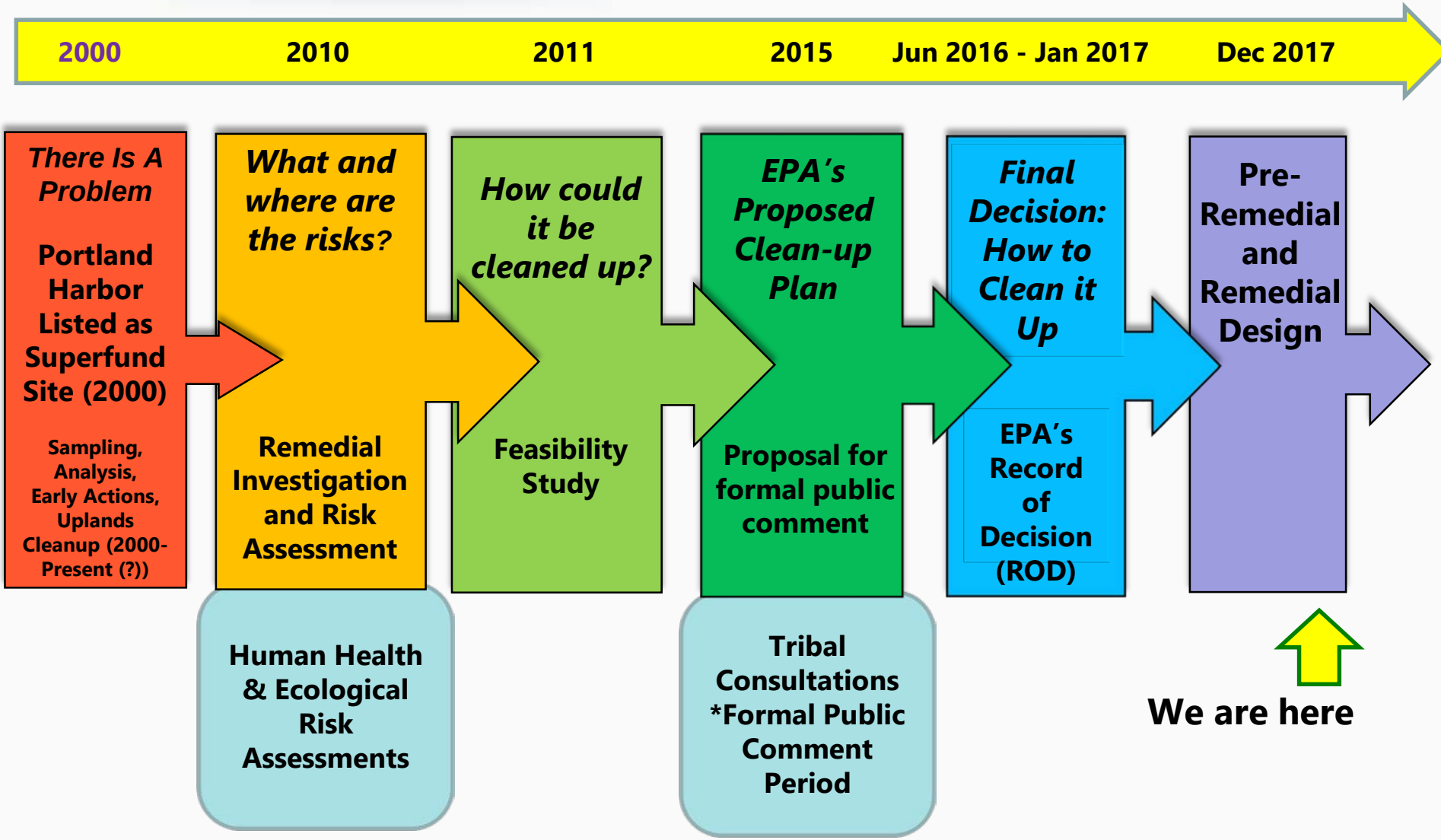
- **Brief Site Overview -** *Sean Sheldrake*
- **Final Site-Wide Baseline Sampling Plan -** *Karl Gustavson*
  - Brief Q&A Session will follow *Laura Knudsen*
- **Early Action Priority Area Updates -** *Sean Sheldrake*
  - Brief Q&A Session will follow
- **Community Involvement Updates –** *Laura Knudsen*
- **Question and Answer Session -** *Kay Morrison*
- **Conclusion and Wrap-Up -** *Kay Morrison*

Please *hold your questions* until the Q&A Sessions.
Thank You!

Site Location & Brief History



Overall Site Progress



Overview of Final Site-Wide Baseline Sampling Plan (Signed December 2017)

- **History** of the development of the agreement
- **Overall Goals** of the agreement
- **Technical Overview** of the sampling work in the agreement
  - Includes key differences from EPA's original draft sampling plan
- **Other Components** of the agreement
  - Community involvement
  - Cost considerations
  - Contractor selection
  - Overview of enforcement and accountability
  - Data management

Source: U.S. EPA

History

- **EPA draft sampling plan** ***(June 2017)***
  - EPA worked with the Technical Coordinating Team (TCT) on the plan
  - EPA Community Info. Session on Draft Sampling Plan (6/17/2017)
- **Discussion between EPA and PRPs interested in performing baseline sampling work** ***(June 2017)***
  - Discussed EPA draft sampling plan and EPA's goals for the baseline sampling effort
- **Negotiations between Pre-RD Group and EPA** ***(July – Dec. 2017)***
  - EPA consulted the Technical Coordinating Team (TCT)
- **Signature of agreement** ***(December 2017)***
  - The Pre-RD Group (**Arkema Inc.**, **Evraz Inc. NA**, **Schnitzer Steel Industries, Inc.**, **The Marine Group LLC**) and EPA signed agreement
  - Final agreement is available at: www.epa.gov/superfund/portland-harbor

Overall Goals

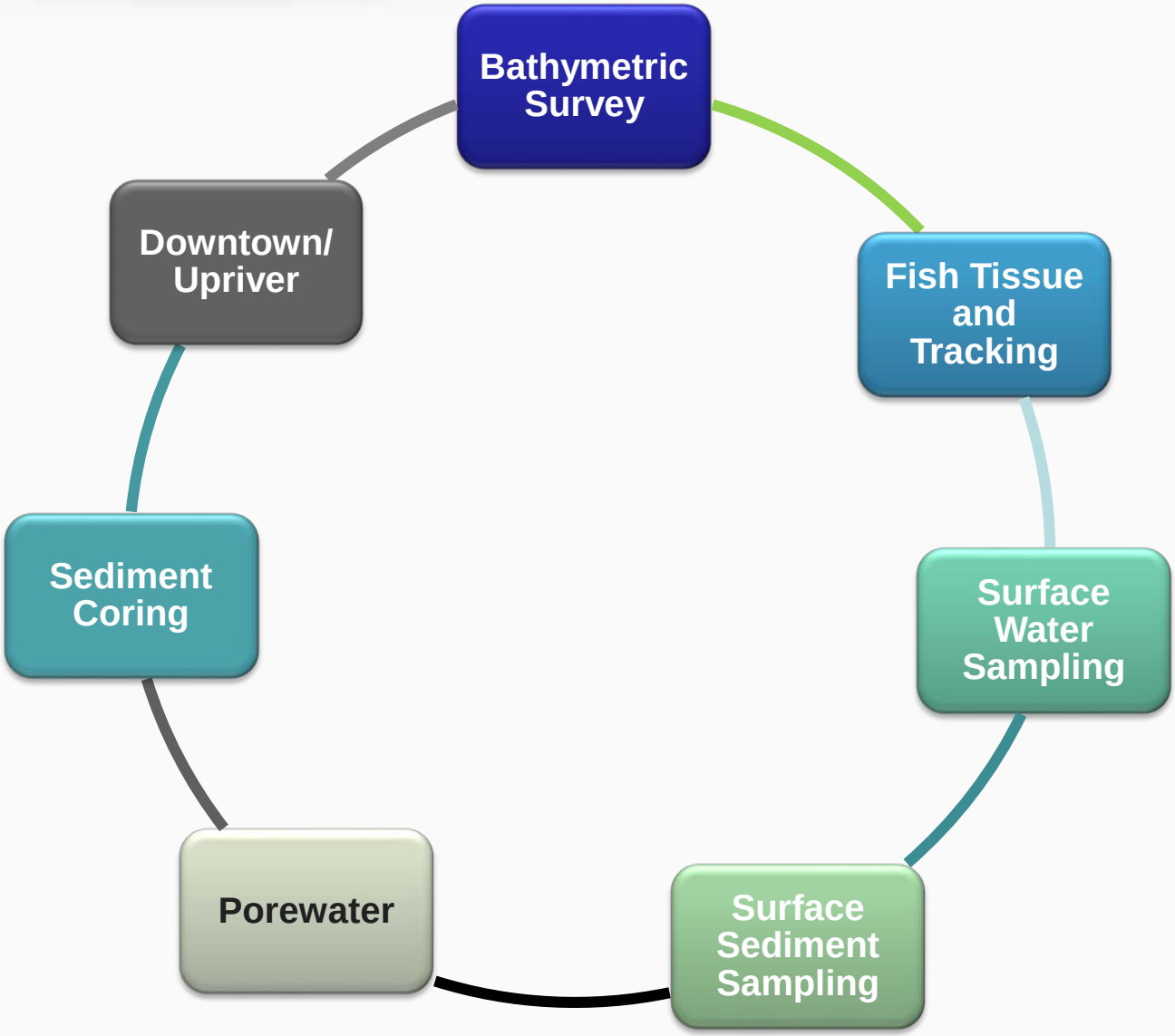
Main Goals of the Agreement:

- Update existing site-wide data
- Gather data to be used as part of future long-term monitoring
- Inform certain analysis regarding scope and extent of remedial actions
- Refine sediment management areas (SMAs)
- Collect data to facilitate completion of third-party allocation

Other Aspects of the Agreement:

- Coordinate with technical coordinating team (TCT) partners to review and comment on deliverables
- Baseline sampling field work, analysis, and reports are anticipated to be complete by **October 2019**

Technical Overview



Bathymetric Survey

- **What is a bathymetric survey?**
  - Creating a picture of the riverbed and gathering information about the riverbed (all of the peaks and valleys)

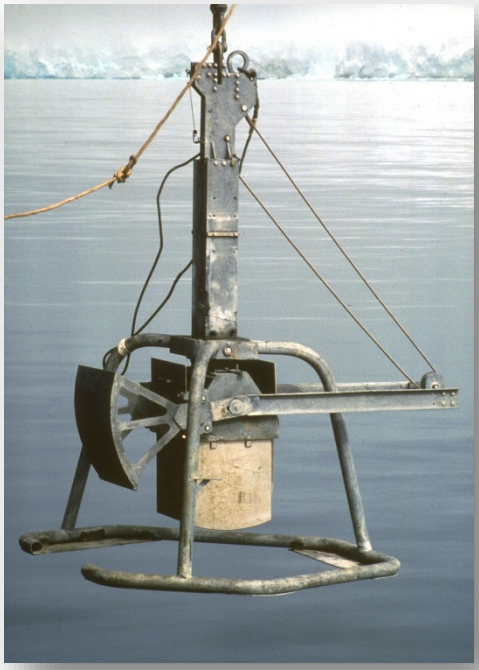
2002 Portland Harbor Bathymetric Survey
Source: U.S. EPA

- **Goals of the Bathymetric Survey:**
  - Identify areas for surface sediment sampling
  - Inform future dredging and capping
  - Provide information on riverbed slope, natural recovery, and bed stability
  - Anticipated completion date is **To be Determined**

Key Differences From EPA's Draft Plan (June 2017):
- A Bathymetric Survey was not included

Surface Sediment Sampling

- **What is surface sediment?**
  - The uppermost layer of mud (or sediment) on the bottom of the river. For Portland Harbor, this is defined as the upper 12 inches of sediment.
- **Goals:**
  - Refine sediment management areas
  - 606 total samples will be taken
    - 428 random samples within the Site
    - 178 non-random samples at specific locations for SMA delineation
  - Anticipated schedule is **January 2018 – March 2018**

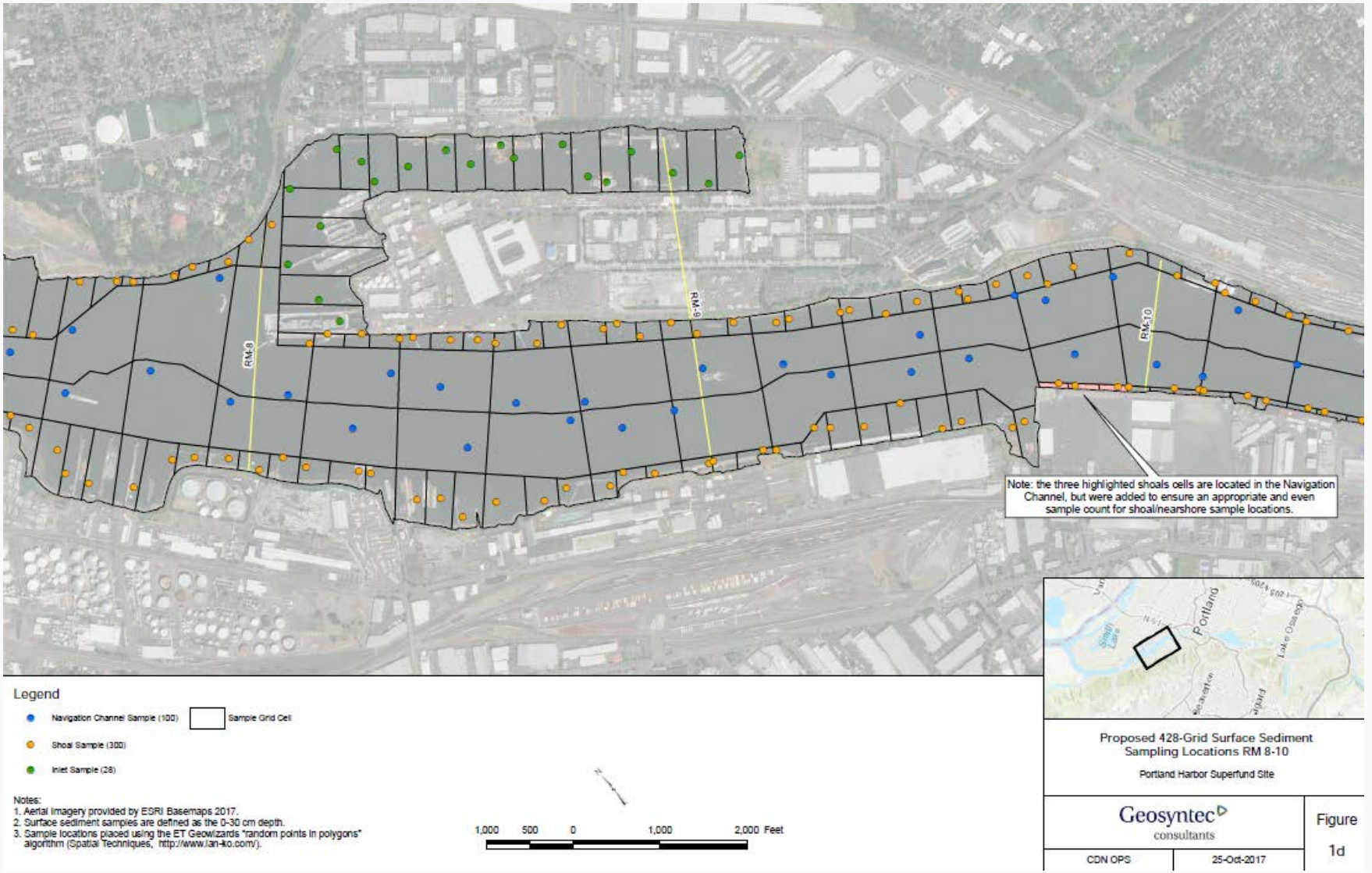


Surface Sediment Sampler
Source: Geosyntec

Key Differences From EPA's Draft Plan (June 2017):

- EPA had planned to fully determine sediment management areas (non-random samples); this current plan is a first phase.
- EPA's sample pattern for baseline sampling was different.

Surface Sediment
Sampling Grid



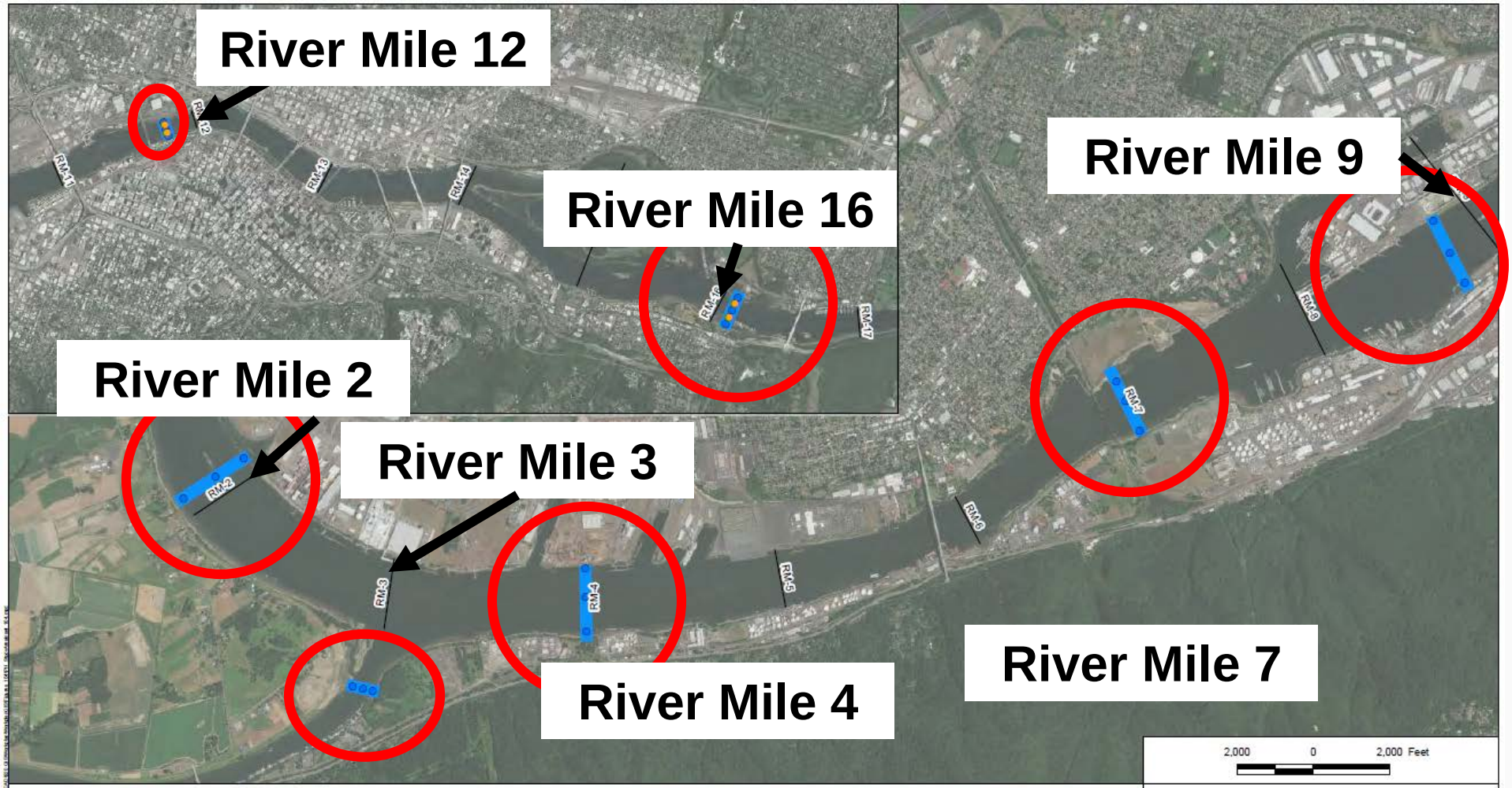
Surface Water Sampling

- **What is surface water?**
  - River water (not porewater)
- **What is a transect?**
  - A pre-determined line across the river with water sampling stations
- **Goals of Surface Water Sampling:**
  - Provides baseline water contaminant concentrations to update risk & to understand the long-term performance of the remedy
  - Collect samples from **seven transects ("lines")** three different times because of changing seasons
  - Expected to occur through **summer 2018**

Key Differences From EPA's Draft Plan (June 2017):

- EPA proposal had fewer water sampling transects.

Surface Water Sample Locations



Fish Tissue Sampling

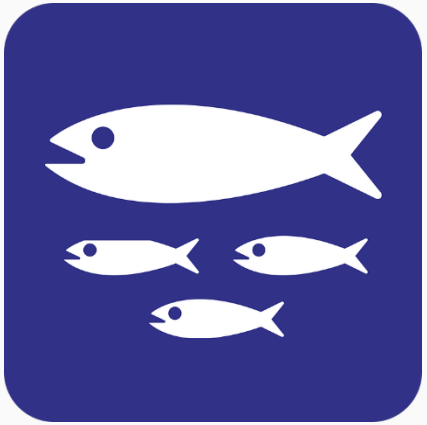
- **Goals of the Fish Tissue Sampling:**
  - Establish baseline for smallmouth bass tissue contamination
  - 95 smallmouth bass samples (whole body) will be taken within the Site
  - Sampling anticipated to start in **late summer 2018**

Smallmouth Bass
Source: Oregon Health Authority

Key Differences From EPA's Draft Plan (June 2017):

- EPA's draft plan included additional species for sampling:
  - **Resident Species:** Carp, crayfish, clams
  - **Migratory Species:** Chinook Salmon, Pacific Lamprey, White Sturgeon
  - **Osprey Eggs**

Fish Acoustic Tracking Study

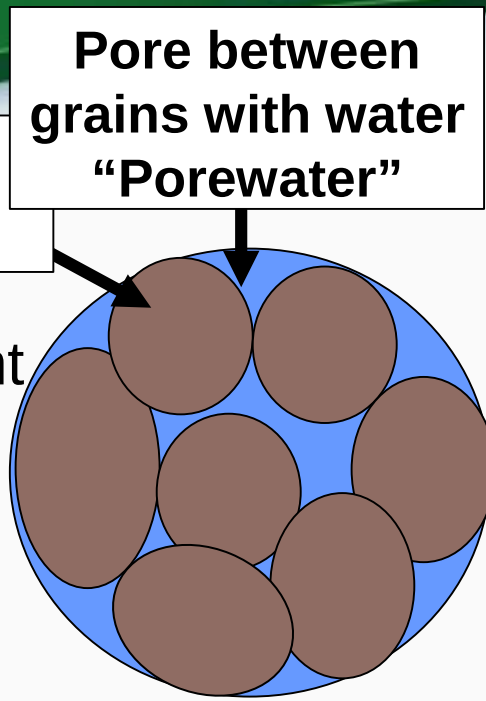


- **What is a fish acoustic tracking study?**
  - Transmitters are implanted into fish that "ping" every few seconds. Receivers are placed in the river to record date, time, and location of the fish.
- **What are the goals of the fish acoustic tracking study?**
  - Gather information on the movement of **smallmouth bass** for one year
  - Better understand the areas where smallmouth bass are being exposed to contamination
  - Anticipated timeframe for the study is **early spring 2018** through **winter 2019**

Key Differences From EPA's Draft Plan (June 2017):

- Fish acoustic tracking study was not included

Porewater Sampling



- **What is porewater?**
  - The water that is in between grains of sediment in the sediment bed.
- **Goals of Porewater Sampling:**
  - Provide more information to fill data gaps
    - Background concentrations of manganese and arsenic in porewater weren't addressed in the Remedial Investigation
  - Collect 8 total samples at specific locations

Key Differences From EPA's Draft Plan (June 2017):

- Porewater sampling was not included

Porewater peeper sampling device
Source: Geosyntec

Sediment Coring

- **What is sediment coring or subsurface sediment sampling?**
  - Collecting samples of the mud (or sediment) at the bottom of the river at a depth that goes further than the uppermost layer of sediment.
- **Goals of Sediment Coring:**
  - Refine sediment management areas where there is limited data
  - **90 core sediment samples** will be taken at specific locations in **two foot sections**
  - Samples will be analyzed for contaminants of concern

Key Differences From EPA's Draft Plan (June 2017):

- EPA proposed **1,080 to 1,470 core sediment samples** in **one foot sections**
  - These samples were meant to develop the entire design plan for the cleanup (full remedial design)

Downtown/Upriver

- **Goals of Downtown/Upriver sampling:**
  - Provide more information about contaminants of concern entering the Site
  - **Surface Sediment:** Collect **30 random samples** in the Downtown Reach and **30 random samples** in the Upriver Reach
  - **Fish Tissue:** **40 smallmouth bass samples** will be collected
  - **Surface Water:** **Two sample locations (transects)** at River Mile 11.8 and River Mile 16.2
  - **Sediment Traps:** **Four sediment traps** (glass tubes to grab sediment coming into the Site) will be sampled 3 times over one year.

Key Differences From EPA's Draft Plan (June 2017):

- EPA had wanted 60 surface sediment samples in the Downtown Reach and the Upriver Reach
- EPA had wanted the same additional species sampled in this area as well (not just smallmouth bass)

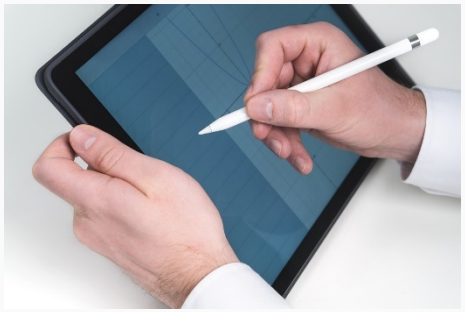
Other Components

2004 Portland Harbor Field Day, Cathedral Park
Source: U.S. EPA

- **Community Involvement:**
  - If requested by EPA, the Pre-RD Group shall:
    - Support EPA's Community Involvement activities related to this agreement
    - Explore the possibility of participating in the Superfund Job Training Initiative Program
    - Designate a Pre-RD Group Community Involvement Coordinator
- **Cost:**
  - The Pre-RD Group shall reimburse EPA response costs up to $2 Million under this agreement
  - The Pre-RD Group estimates total cleanup cost will be $12 Million and shall provide EPA financial assurance that they can pay this cost
  - In addition to the four PRPs listed on this agreement, other PRPs have agreed to help cover the cost as well

Other Components

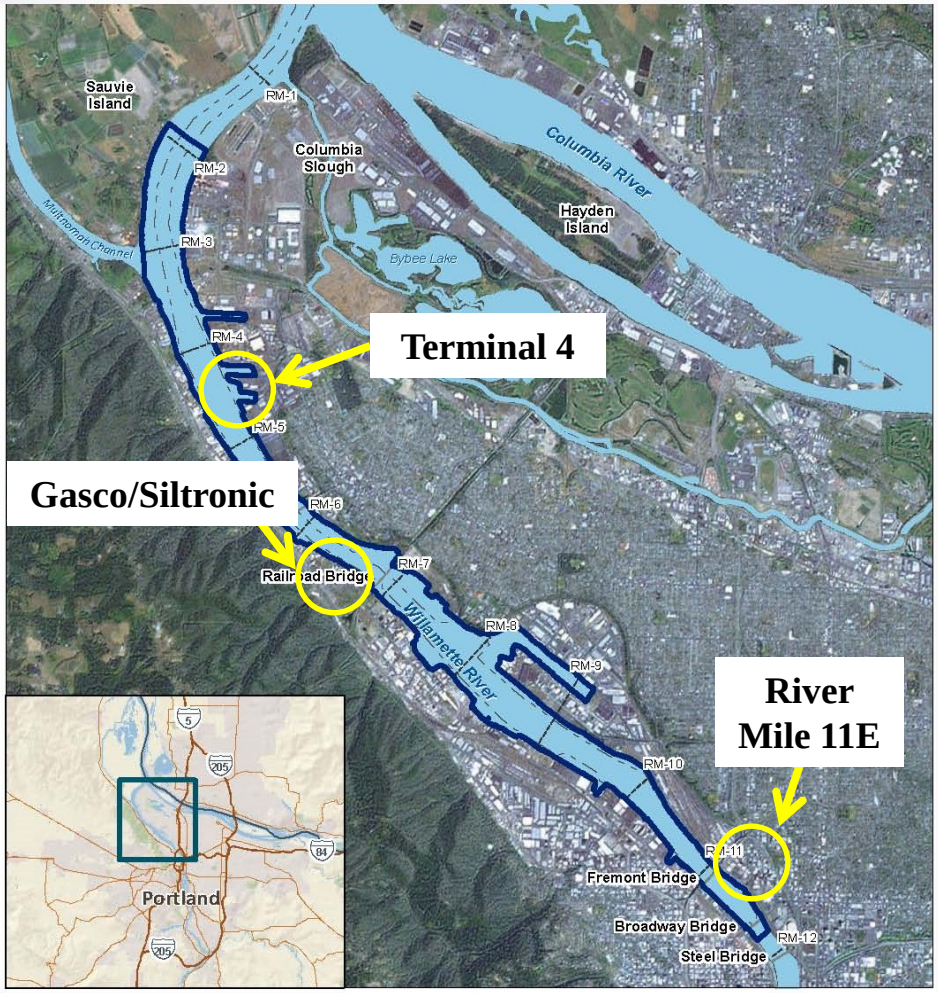
- **Contractor Selection:**
  - EPA may review contractors selected by the pre-RD group to perform the field sampling work
- **Enforcement and Accountability:**
  - EPA can impose **financial penalties** for noncompliance
  - A **dispute resolution process** may occur if the Pre-RD Group objects to an EPA decision or action in this agreement
  - EPA may do a '**work takeover**' from the Pre-RD Group. The Pre-RD group won't have to pay for those costs under this agreement
  - Pre-RD Group shall have **regular meetings** with EPA
  - Pre-RD Group will provide **regular progress reports** to EPA
  - EPA will conduct **site inspections** or be **on-site** during field work
- **Data Management:**
  - Draft data management plan is included in agreement
  - Data management process is still in development



Questions?

Early Action Priority Sites

- **Gasco/Siltronic**
- **River Mile 11 East**
- **Terminal 4**



Source: Lower Willamette Group

Gasco/Siltronic

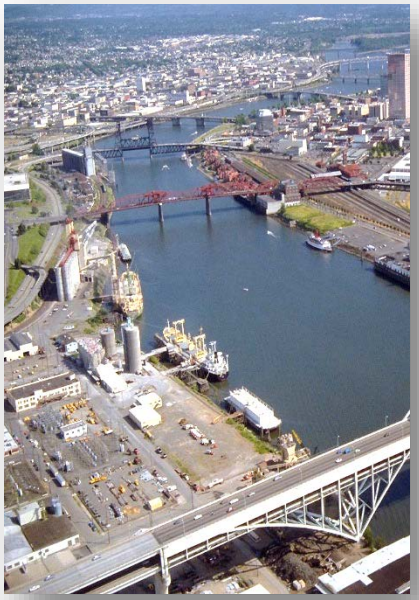
- EPA Remedial Project Manager: **Sean Sheldrake**
- Existing Administrative Order is in place for remedial design
- EPA is working with the NW Natural Gas Company and the Siltronic Corporation to design a cleanup plan
- Cleanup plan design is expected to take **two to three years**

Opportunities for Community Involvement?

- Once a rough draft of the cleanup design plan is complete, EPA will provide the document for public comment and provide an information session
  - ***Estimated timeframe:*** ~1 year from now

River Mile 11 East

- EPA Remedial Project Manager: **Sean Sheldrake**
- A draft Administrative Order for remedial design has been written and is expected to be signed soon
- Cleanup plan design is expected to take **two to three years**



Opportunities for Community Involvement?

- Once a rough draft of the cleanup design plan is complete, EPA will provide the document for public comment and provide an information session
  - ***Estimated timeframe:*** ~1 year after signature of Administrative Order

Terminal 4

- EPA Remedial Project Manager: **Rebecca Chu**
- EPA and Port are currently discussing:
  - how the ROD applies/would be implemented at T4; and
  - amending the existing Administrative Order to begin remedial design.

Source: Port of Portland

Questions?

Community Involvement

- **Community Involvement Plan**
  - Over 50 community in-person interviews conducted
  - Currently working to compile interview information and draft updated plan
  - Draft Community Involvement Plan is anticipated available for community review in **early Spring 2018**

2006 EPA Presentation to CAG
Source: U.S. EPA

- **New Portland Harbor Website**
  - New website link: www.epa.gov/superfund/portland-harbor
  - Document organization for new website is ongoing
- **Technical Assistance Grant**
  - EPA received a letter of intent (LOI) from the Willamette River Advocacy Group on 12/8/2017
  - EPA plans to post a notice in the newspaper this month (**January 2018**) announcing the availability of the technical assistance grant
- **Exploring a regular forum and/or roundtable concept**

Questions?

Karl Gustavson *(Final Site-Wide Baseline Sampling Plan)*

- E-mail: **gustavson.karl@epa.gov**
- Phone: **703-603-8753**

Sean Sheldrake *(Gasco/Siltronic & River Mile 11 East Early Action Areas)*

- E-mail: **sheldrake.sean@epa.gov**
- Phone: **206-553-1220**

Rebecca Chu *(T4 Early Action Area)*

- E-mail: **chu.rebecca@epa.gov**
- Phone: **206-553-1774**

Laura Knudsen *(Community Involvement)*

- E-mail: **knudsen.laura@epa.gov**
- Phone: **206-553-1838**